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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/560,717	12/15/2005	Freddy Roozeboom	NL 040226	8503
65913	7550	05/27/2011	EXAMINER	
NXP, B.V. NXP INTELLECTUAL PROPERTY & LICENSING M/S41-SJ 1109 MCKAY DRIVE SAN JOSE, CA 95131			CHEN, DAVID Z	
			ART UNIT	PAPER NUMBER
			2815	
			NOTIFICATION DATE	DELIVERY MODE
			05/27/2011	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ip.department.us@nxp.com

**Advisory Action
Before the Filing of an Appeal Brief**

Application No.

10/560,717

Applicant(s)

ROOZEBOOM ET AL.

Examiner

DAVID CHEN

Art Unit

2815

—The MAILING DATE of this communication appears on the cover sheet with the correspondence address —

THE REPLY FILED 04 May 2011 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☐ The period for reply expires _____ months from the mailing date of the final rejection.
b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.
Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☒ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
(a) ☒ They raise new issues that would require further consideration and/or search (see NOTE below);
(b) ☐ They raise the issue of new matter (see NOTE below);
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
(d) ☒ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: Claim 28 (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. ☐ Applicant's reply has overcome the following rejection(s): _____.
6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☒ For purposes of appeal, the proposed amendment(s): a) ☒ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
The status of the claim(s) is (or will be) as follows:
Claim(s) allowed: _____
Claim(s) objected to: 2, 4 and 9
Claim(s) rejected: 1, 3, 5-8, 10 and 20-27
Claim(s) withdrawn from consideration: _____

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:
See Continuation Sheet.
12. ☐ Note the attached Information *Disclosure Statement*(s). (PTO/SB/08) Paper No(s). _____
13. ☐ Other: _____

/D. C./
Examiner, Art Unit 2815

/MATTHEW E WARREN/
Primary Examiner, Art Unit 2815

Continuation of 11. does NOT place the application in condition for allowance because: Applicants argue "This reliance upon the '769 reference appears to be a new grounds for rejection, which renders the finality of the instant Office Action improper". This is not found persuasive because the '769 reference that is incorporated by reference by the '481 reference is used in response to Applicants' argument filed on February 03, 2011. The '481 reference does not explicitly disclose the formation of the via structure because the '769 reference that is incorporated by reference discloses the formation of the via. The '769 reference does not modify the '481 reference but further supports the disclosure in the '481 reference.

Applicants further argue "This statement does not appear to address Applicant's traversals regarding the '481 teaching away from the proposed combination (and would remain uncontroverted in the record for the purpose of appeal)". This is not found persuasive because as discussed under Response to Arguments in the Final Office Action mailed on March 04, 2011, although the '481 reference discloses the trench capacitor may be preferred to be formed at a different step than the interconnect in the case where the high k insulator in the trench capacitor is not compatible with the conductors in the interconnect, the '481 reference does not limit one of ordinary skill in the art to form the device structure when there is no compatibility issue and thus forming the single deposition layer. The '481 reference does not limit forming the device structure under the circumstances that there is always a compatibility issue by stating it is merely "preferred" to form the trench capacitor at a different step than the interconnect. Thus, the '481 reference does not teach away when a single deposition is applied with the motivation provided by Gambino. Further as discussed under Response to Arguments, the '481 reference discloses the vertical interconnect is used as decoupling capacitor by using a high dielectric constant insulator as in the trench capacitor. In view of such structure, both the vertical interconnect and the trench capacitor are implemented as capacitor structures with both using high k insulators. Thus, there inherently should not have any compatibility issue when forming these structures and the single deposition layer structure can be obtained to have the same electric qualities and no additional step for protection is required.

Applicants further argue "The Final Office Action fails to provide any explanation or proof that this modification is possible, only offering a statement that it could be done. Because the Final Office Action lacks any articulated reasoning for the proposed motivation, the rejections must fail". This is not found persuasive because Gambino specifically discloses forming the vias and the capacitor structures with a single deposition layer with the motivation of reducing lithography steps (See Column 2, lines 36-42, Column 6, lines 48-53).

Applicants further argue "Referring to Col. 3-28-49, the conductive material 25 is deposited on the oxide layer 24, and thus cannot have walls with dielectric thereupon in accordance with the claimed invention". This is not found persuasive because as clearly seen in Fig. 2D in the '970 reference, the vertical interconnect (25) having walls (left and right) on the single deposition layer of dielectric material (24).